

U.S. Appln. No. 09/844,421
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REMARKS

The claims in this application were subject to a restriction requirement between Claims 1-18 drawn to a method of determining at least one surface property, and Claims 19-22 drawn to a method of quantifying the amount of adsorbate adsorbed on a solid based upon temperature changes. Applicants hereby affirm their provisional election to Claims 1-18 and cancel Claims 19-22.

Claims 1-18 stand rejected under 35 U.S.C. 102(b) as being anticipated by Lowell (US 4,566,326), Lowell (US 5,360,743), Willson (US 6,063,633) Lee et al. (US 4,496,249), and Smith (US 4,797,906). Applicants assert that the claims as amended are novel over the cited references and that the references fail to teach all of the elements of the amended claims.

Applicants' Claim 1 as amended calls for measuring the radiation emitted, absorbed, or altered by the respective solid(s) concurrently using a detector. The radiation measurements are used to determine at least one surface property of the solids. The '249 reference uses thermal conductivity in its method for determine relative surface area and fails to teach concurrently measuring the radiation emitted, absorbed, or altered by the respective solid(s) in a multiplicity of solids. Both the '326 reference and the '743 reference use pressure transducers to determine surface measurements and fail to teach concurrently measuring the radiation emitted, absorbed, or altered by the respective solid(s) in a multiplicity of solids. Not only do the references fail to teach using radiation measurements and instead teach the use of measurements based on thermal conductivity and pressure transducers, which are not radiation measurements, but the references also fail to teach concurrently measuring the radiation of each solid in a multiplicity of solids.

Applicants Claim 1 as amended calls for desorbing adsorbed adsorbate from the solids while measuring the radiation emitted, absorbed, or altered by the respective solid(s) concurrently using a detector. The '906 reference teaches: impregnating a rock sample with a fluid containing elements of X-ray fluorescence, stimulating the sample by X-rays, and detecting and measuring the

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resulting x-ray fluorescence. The '906 reference fails to teach (1) desorbing an adsorbate from the solids while measuring the radiation and (2) concurrently measuring the radiation from each solid in a multiplicity of solids. The '633 reference teaches contacting a plurality of catalysts with a reactant stream under reaction conditions and detecting comparative catalyst reactivity occurring at each of the catalysts through simultaneously sensing radiation emitted, absorbed or altered by the catalysts which is indicative of catalyst activity. The '633 reference fails to teach desorbing an adsorbate from the solids while measuring the radiation and determining at least one surface property using the radiation measurements.

It is well settled in the law that for a rejection of anticipation to be proper, each and every element of an invention must be found within the cited prior art reference. As discussed above, each of the cited references fails to teach at least one claimed element of applicants' invention. Therefore the *prima facie* case of anticipation must fail, and applicants respectfully request that the rejection be withdrawn.

Accordingly, in view of the above amendments and remarks, this application is now believed to be in a condition for an allowance of all remaining claims and such action is respectfully requested.

Respectfully submitted,



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